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MIPR NO: 90MM0558

TITLE: TRACHEAL RECONSTRUCTION WITH SYNTHETIC GORE-TEX

GRAFTS IN THE RABBIT MODEL

PRINCIPAL INVESTIGATOR: Anthony J. Canfield

CONTRACTING ORGANIZATION: William Beaumont Army Medical Center

Department of Clinical Investigation

El Paso, Texas 79920-5001

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Department of Surgery

HQ: US Army Medical Research and Development Command

Attn: SGRD-ACQ (Ms. Carey)

Fort Detrick

Frederick, Maryland 21702-5012

Dear Ms. Carey:

This is the final report on MIPR 90MM0558, Tracheal Reconstruction with Synthetic Gortex Grafts in the Rabbit Model (WBAMC #89/70, HSC #90027).

A total of 14 animals underwent subcutaneous implantation and subsequent tracheal reconstruction with a 2-3 cm segment of Gortex. Five of 14 animals survived longer than 30 days. Four of these survivors had their reconstruction longer than 30 days after subcutaneous implantation. Of the eight animals which underwent reconstruction less than 30 days after subcutaneous implantation, only one lived greater than 30 days. The longest survivor was 479 days and is still alive and well.

Necropsy of animals who died less than 30 days post reconstruction showed fibrous deposition. One animal which died 84 days after reconstruction had respiratory epithelium at necropsy.

In closing, this study has demonstrated that tracheal reconstruction with ribbed Gortex is a viable surgical technique. Implantation of the graft subcutaneously for a period of longer than 30 days improves the chances of a successful reconstruction. Additional studies should be undertaken to support these findings and further define the role of tracheal reconstruction with Gortex.

Sincerely,

Miller F. Rhodes, M.D.

Colonel, Medical Corps

Chief, Otolaryngology-Head & Neck

Surgery Service Associate investigator

Copy Furnished:

WBAMC Dept of Clinical Investigation